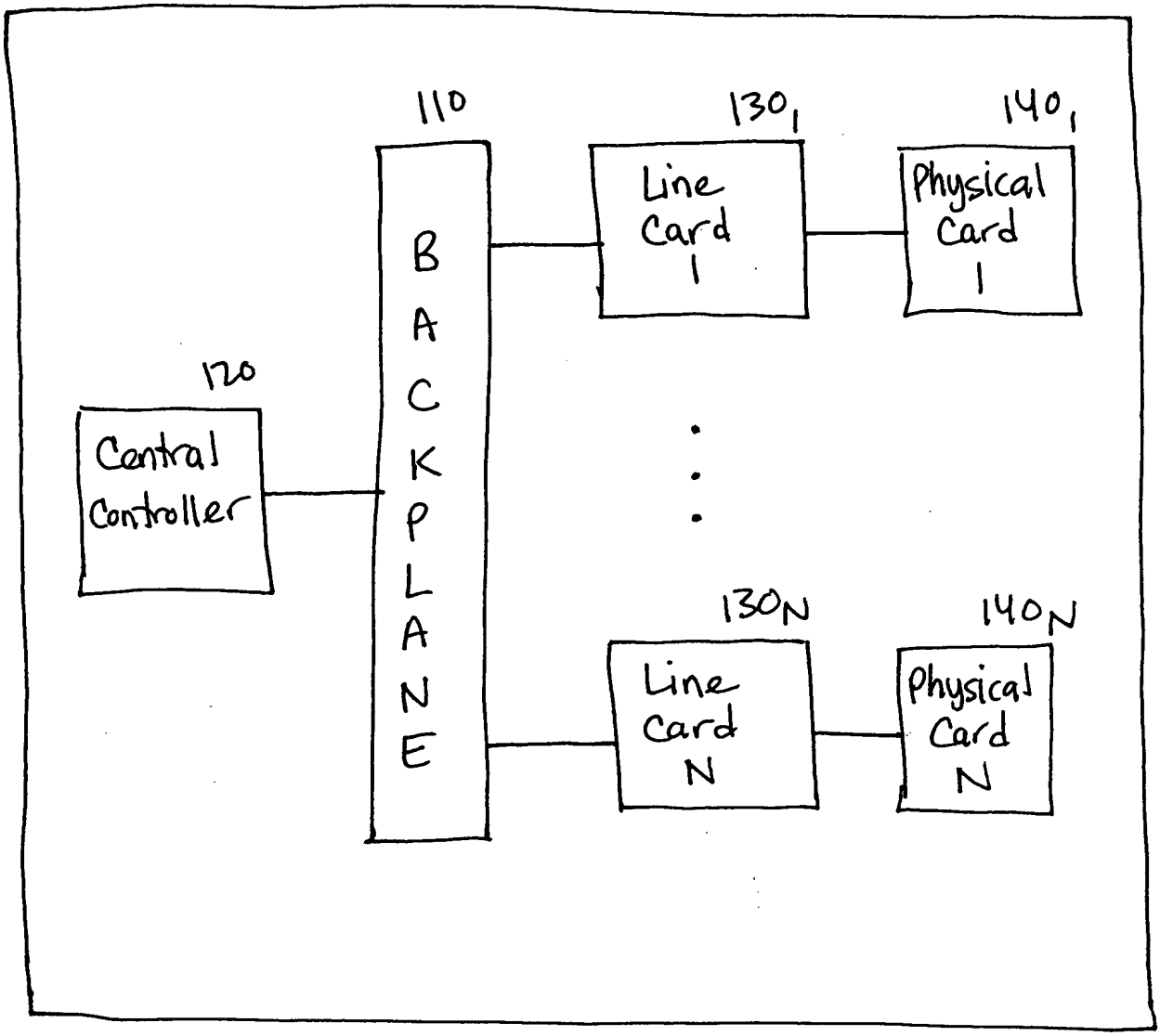

110
130 1
140 1
Line Card 1
Physical Card 1
BACKPLANE
120
Central Controller
130N
140N
Line Card N
Physical Card N

FIG. 1 100

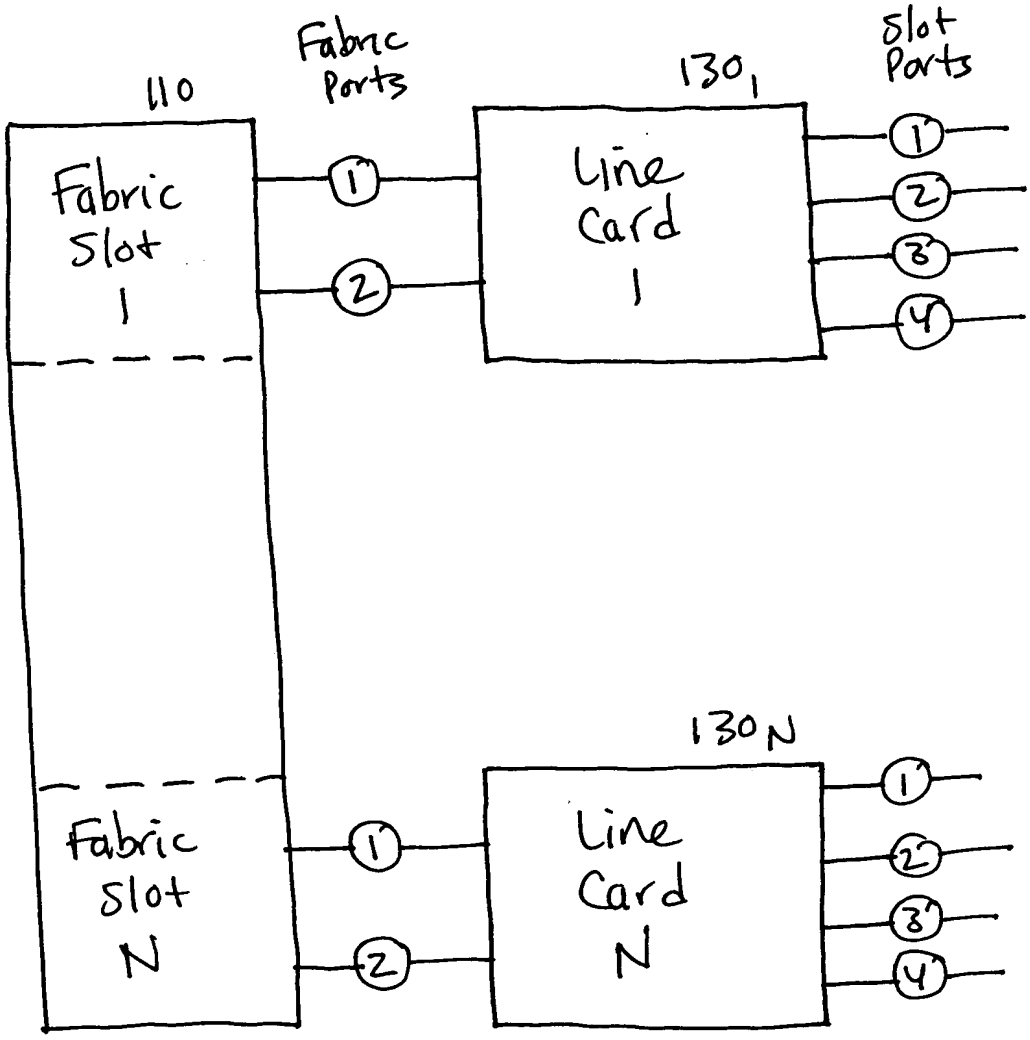

110
Fabric Ports
130 1
Slot Ports
Fabric Slot 1
1'
2'
Line Card 1
1
2
3
4
Fabric Slot N
130 N
Line Card N

FIG. 2

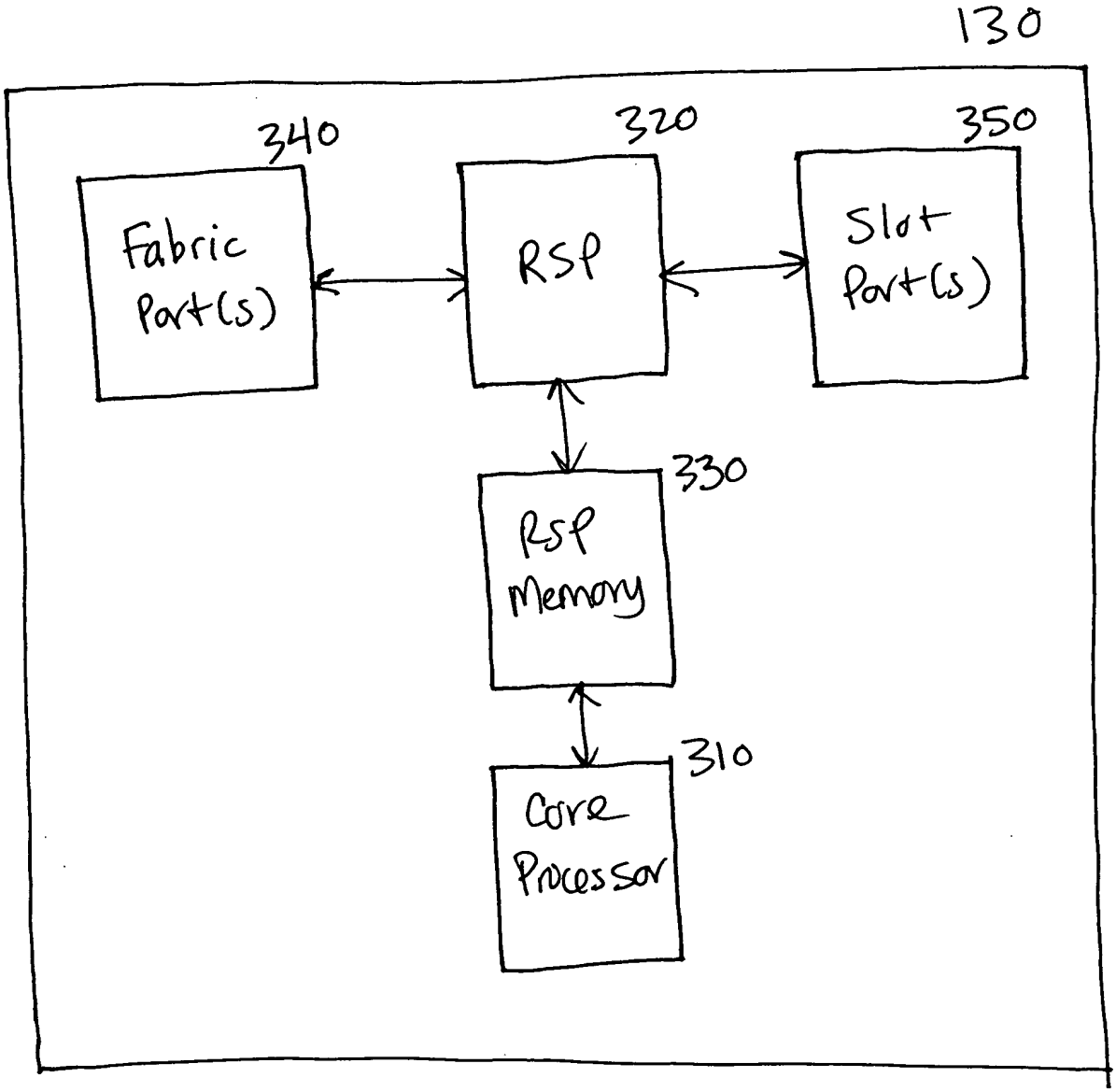
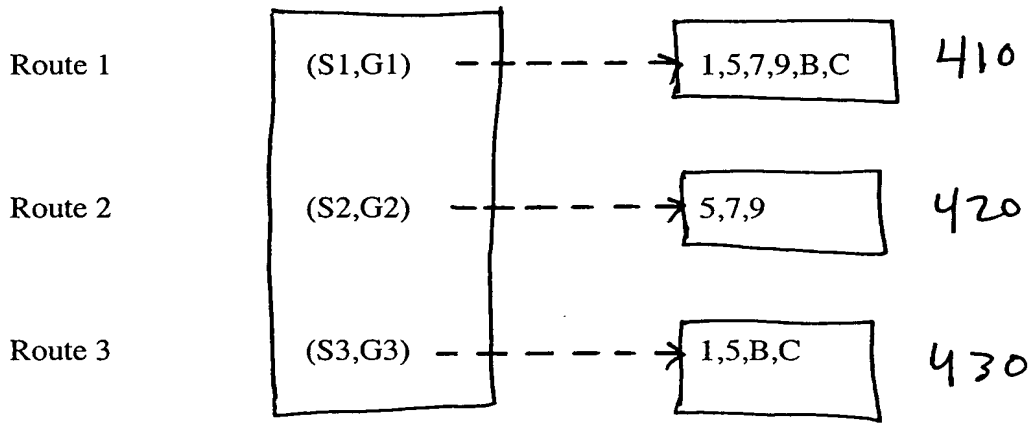
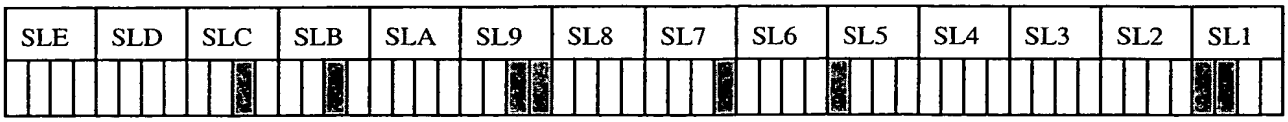

130
340
320
350
Fabric Port(s)
RSP
Slot Port(s)
330
RSP Memory
310
Core Processor

FIG. 3



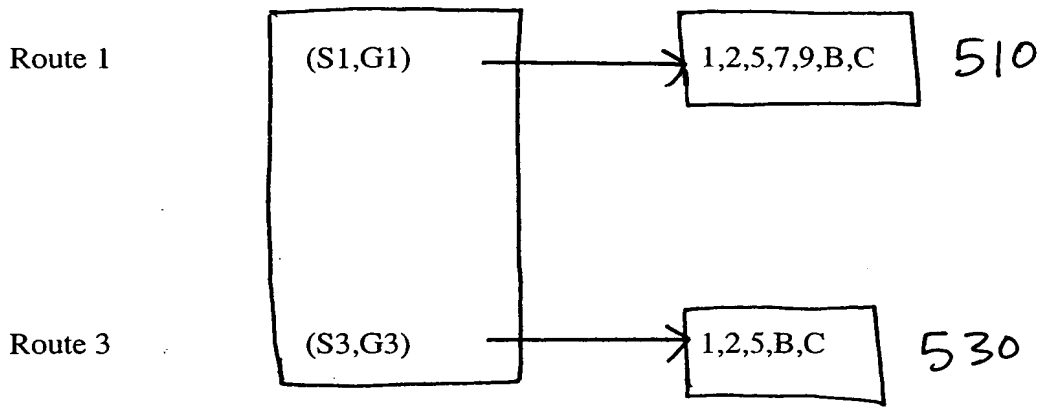
400

FIG. 4A - Main Routing Table



440

FIG. 4B - Main Routing Vector



500

FIG. 5A - Bridged Routing Table [Slot1,Slot2]

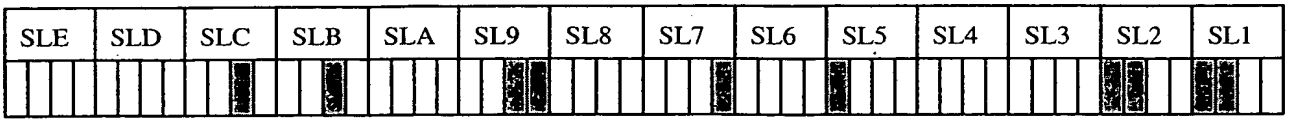


FIG. 5B - Bridged Routing Vector [Slot1,Slot2] 540

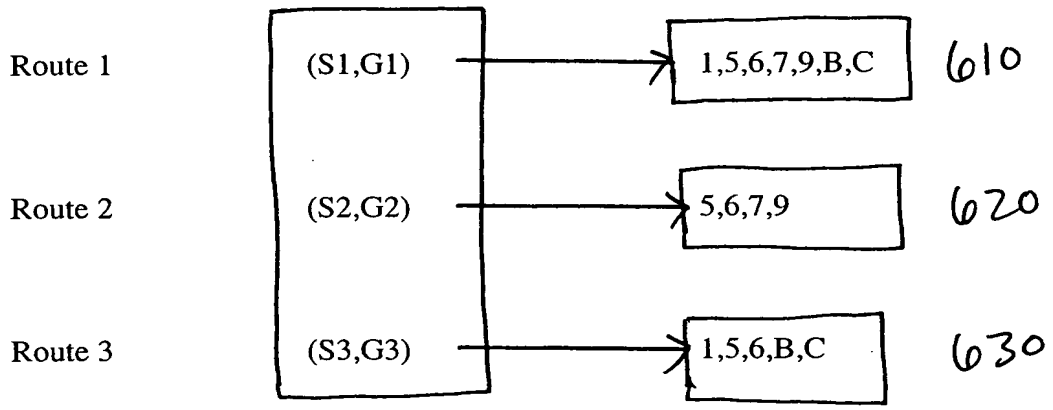
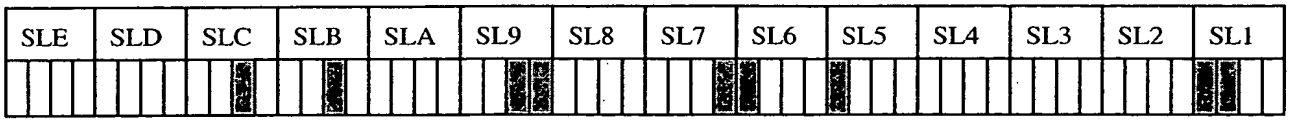
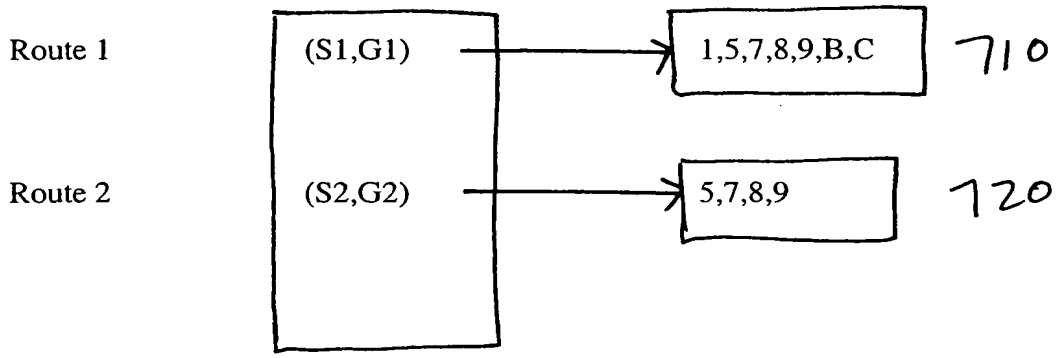


FIG. 6A - Bridged Routing Table [Slot5,Slot6]



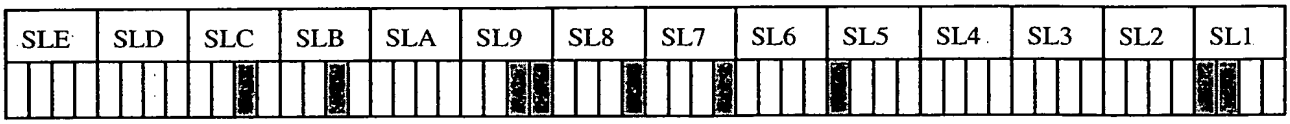
640

FIG. 6B - Bridged Routing Vector [Slot5,Slot6]



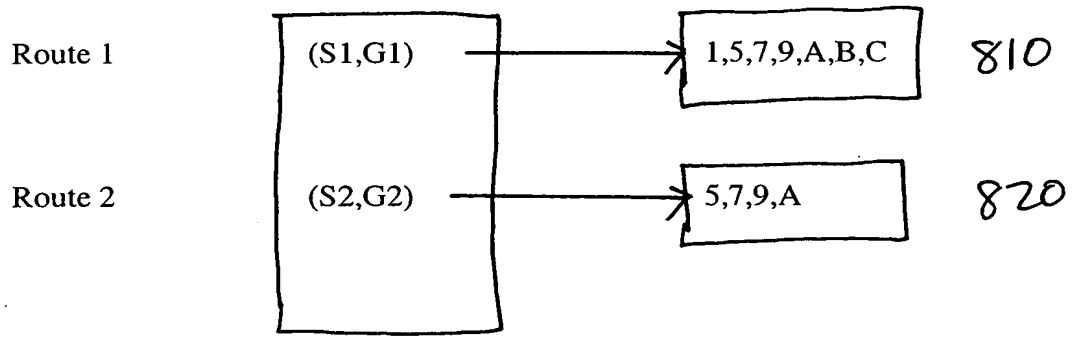
700

FIG. 7A - Bridged Routing Table [Slot7,Slot8]



740

FIG. 7B - Bridged Routing Vector [Slot7,Slot8]



800

FIG. 8A - Bridged Routing Table [Slot9,SlotA]

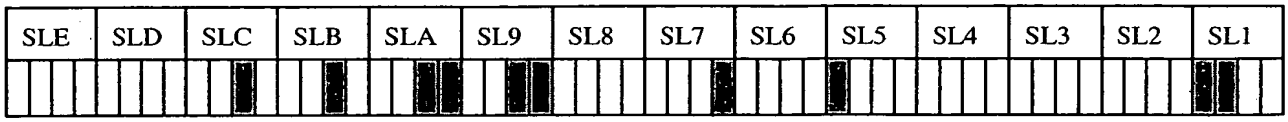
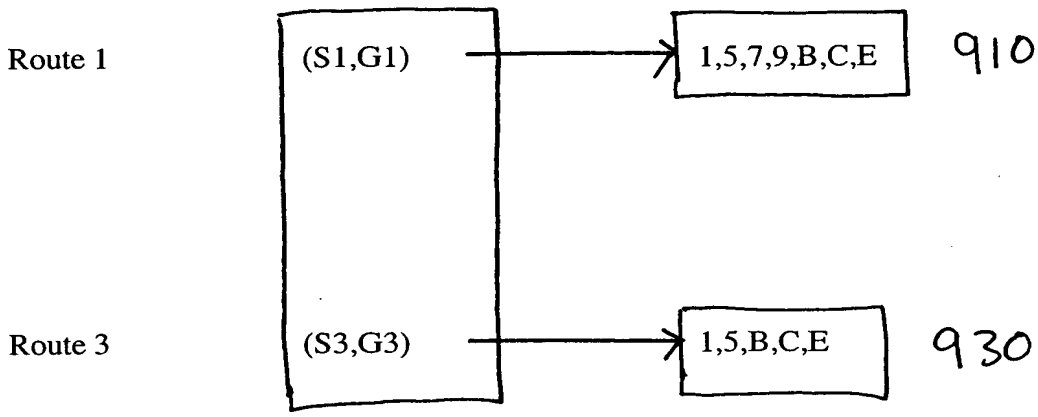
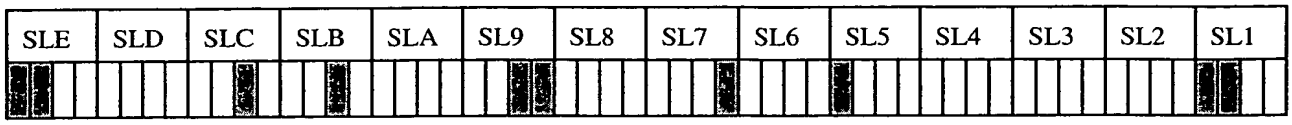


FIG. 8B - Bridged Routing Vector [Slot9,SlotA] 840



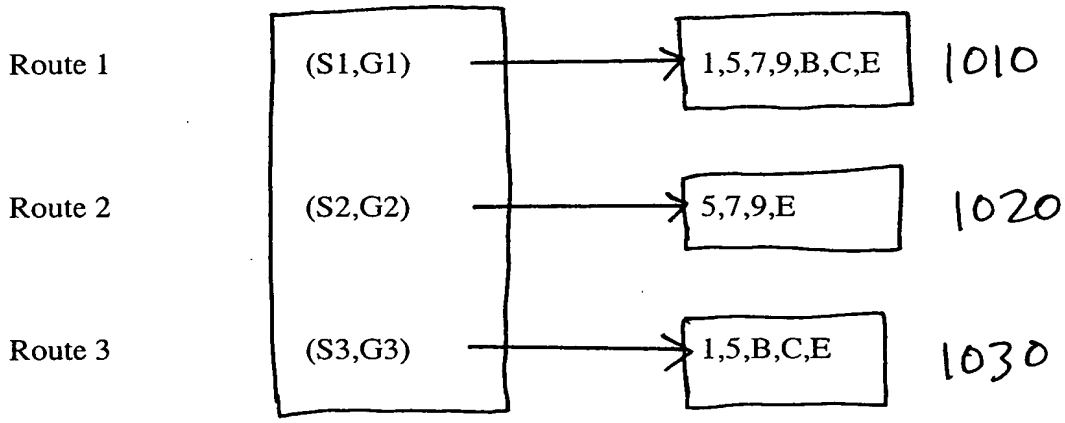
900

FIG. 9A - Bridged Routing Table [Slot1,SlotE]



940

FIG. 9B - Bridged Routing Vector [Slot1,SlotE]



1000

FIG. 10A - Bridged Routing Table [Slot5,SlotE]

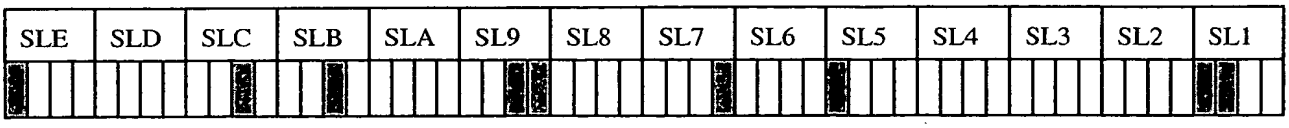
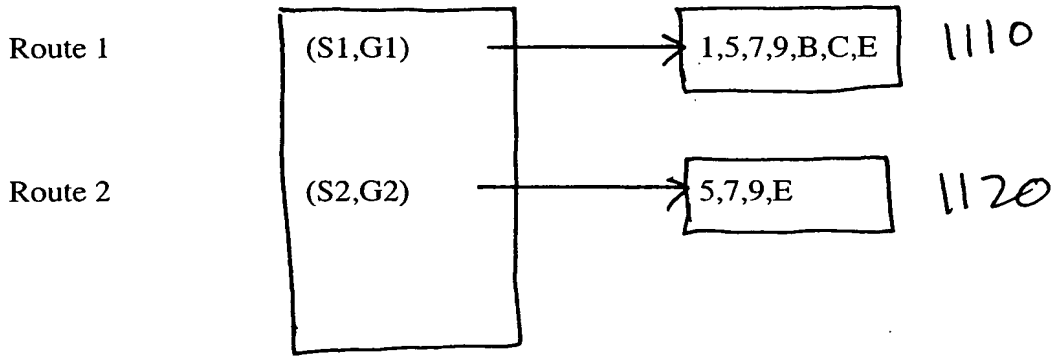
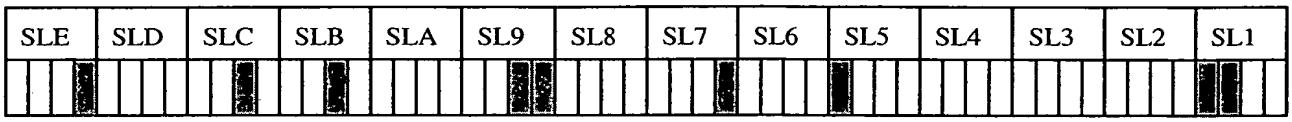


FIG. 10B - Bridged Routing Vector [Slot5,SlotE] 1040



1100

FIG. 11A - Bridged Routing Table [Slot7,SlotE]



1140

FIG. 11B - Bridged Routing Vector [Slot7,SlotE]

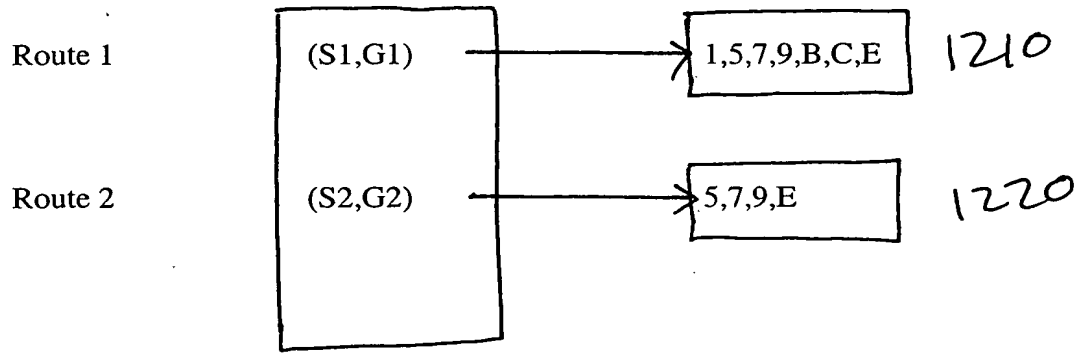


FIG. 12A - Bridged Routing Table [Slot9,SlotE]

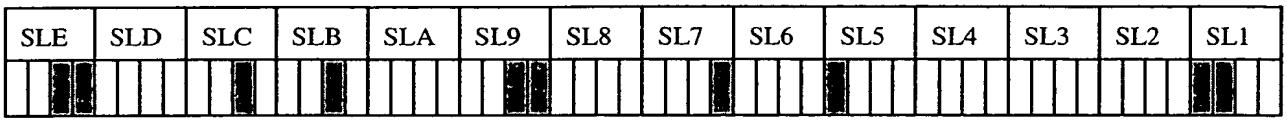


FIG. 12B - Bridged Routing Vector [Slot9,SlotE] 1240

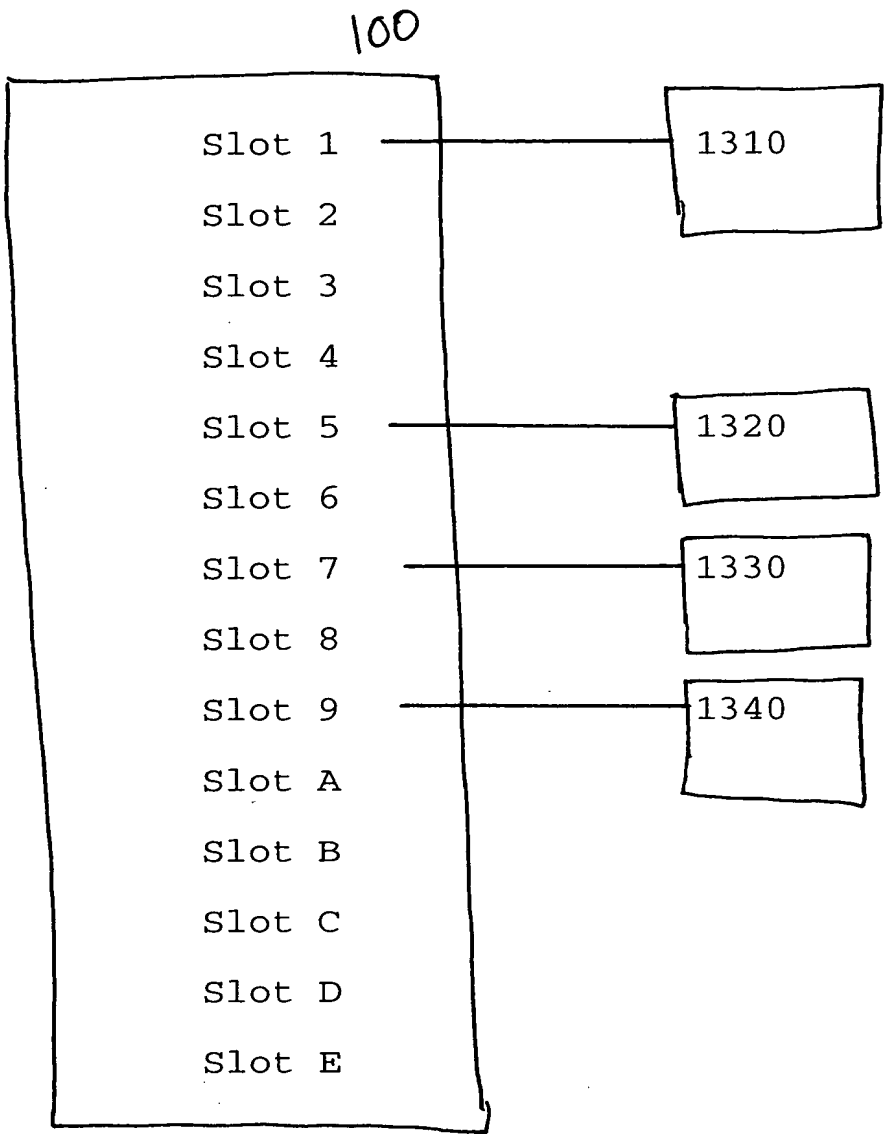

100
Slot 1
Slot 2
Slot 3
Slot 4
Slot 5
Slot 6
Slot 7
Slot 8
Slot 9
Slot A
Slot B
Slot C
Slot D
Slot E
1310
1320
1330
1340

FIG. 13 1300

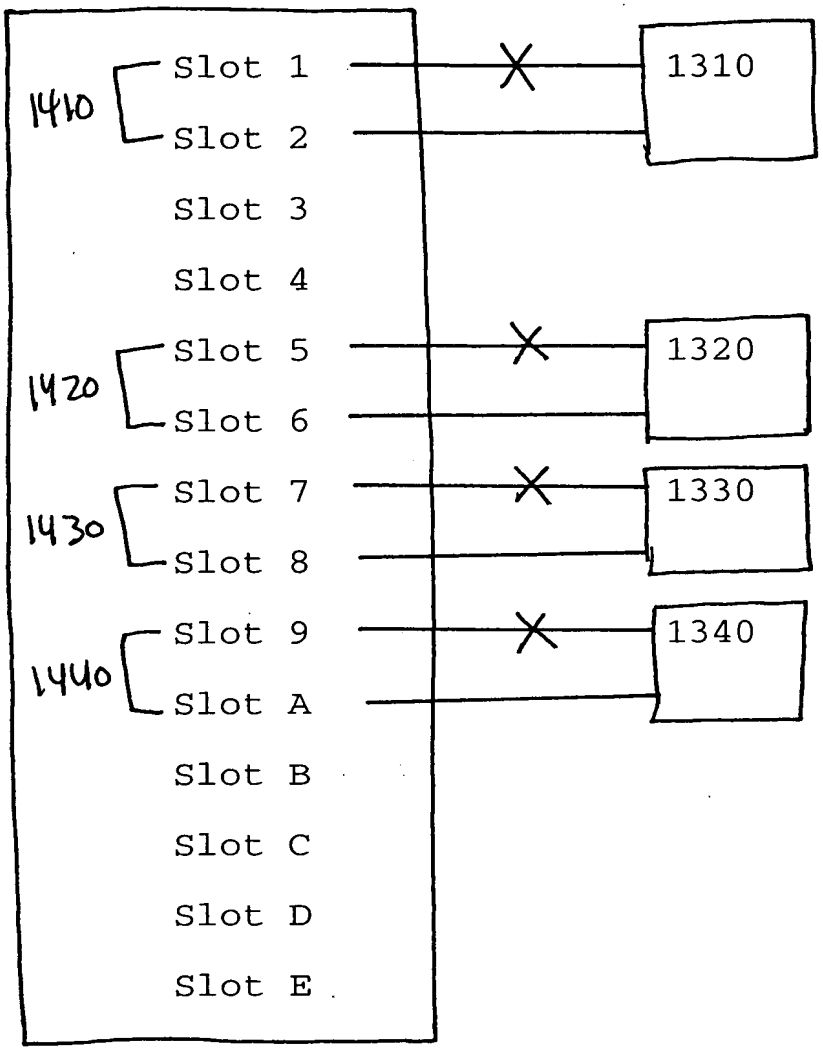

1410
Slot 1
Slot 2
Slot 3
Slot 4
1420
Slot 5
Slot 6
1430
Slot 7
Slot 8
1440
Slot 9
Slot A
Slot B
Slot C
Slot D
Slot E
1310
1320
1330
1340

FIG. 14 1400

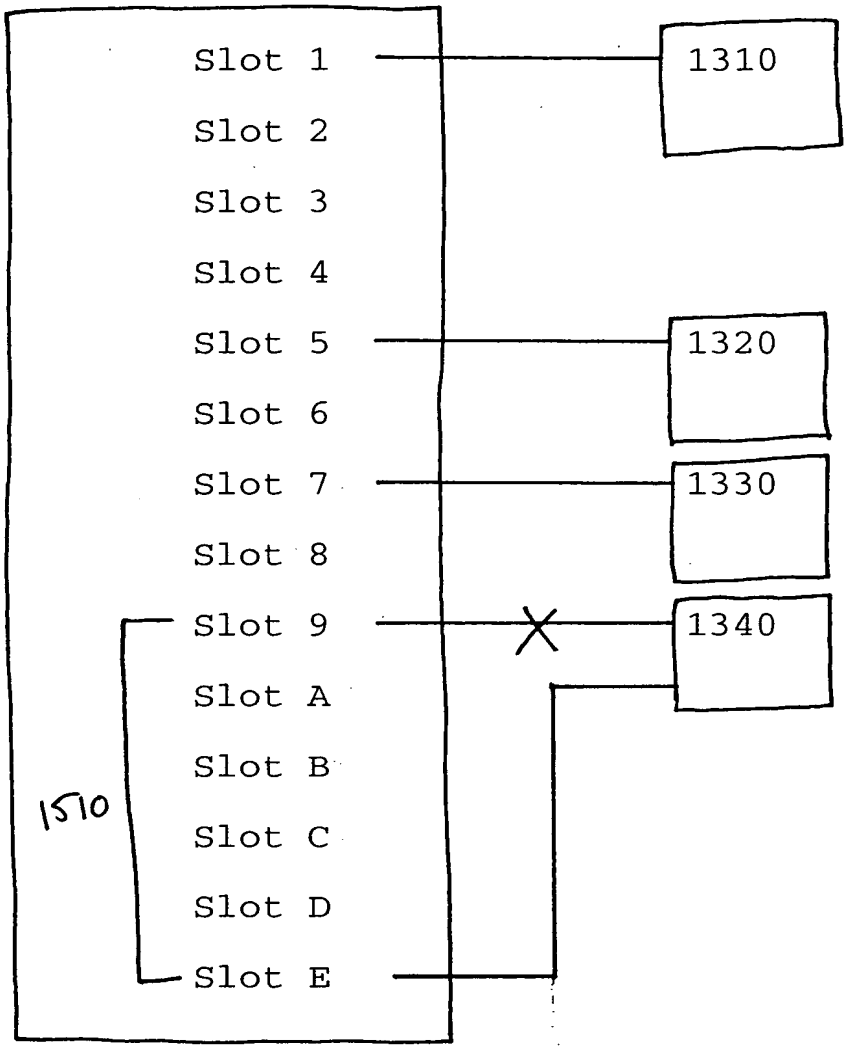

Slot 1
Slot 2
Slot 3
Slot 4
Slot 5
Slot 6
Slot 7
Slot 8
Slot 9
Slot A
Slot B
Slot C
Slot D
Slot E
1310
1320
1330
1340
1510

FIG. 15 1500

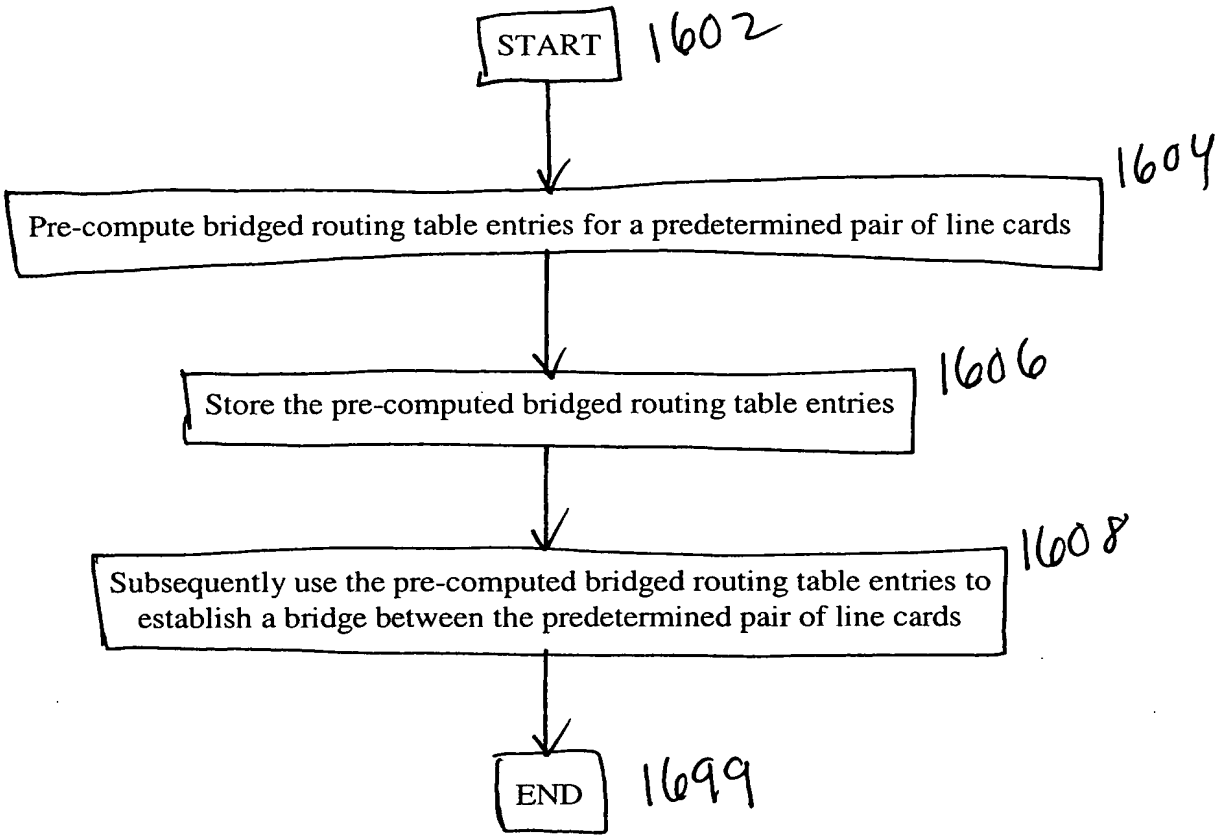

START
1602
Pre-compute bridged routing table entries for a predetermined pair of line cards
1604
Store the pre-computed bridged routing table entries
1606
Subsequently use the pre-computed bridged routing table entries to establish a bridge between the predetermined pair of line cards
1608
END
1699

FIG. 16 1600

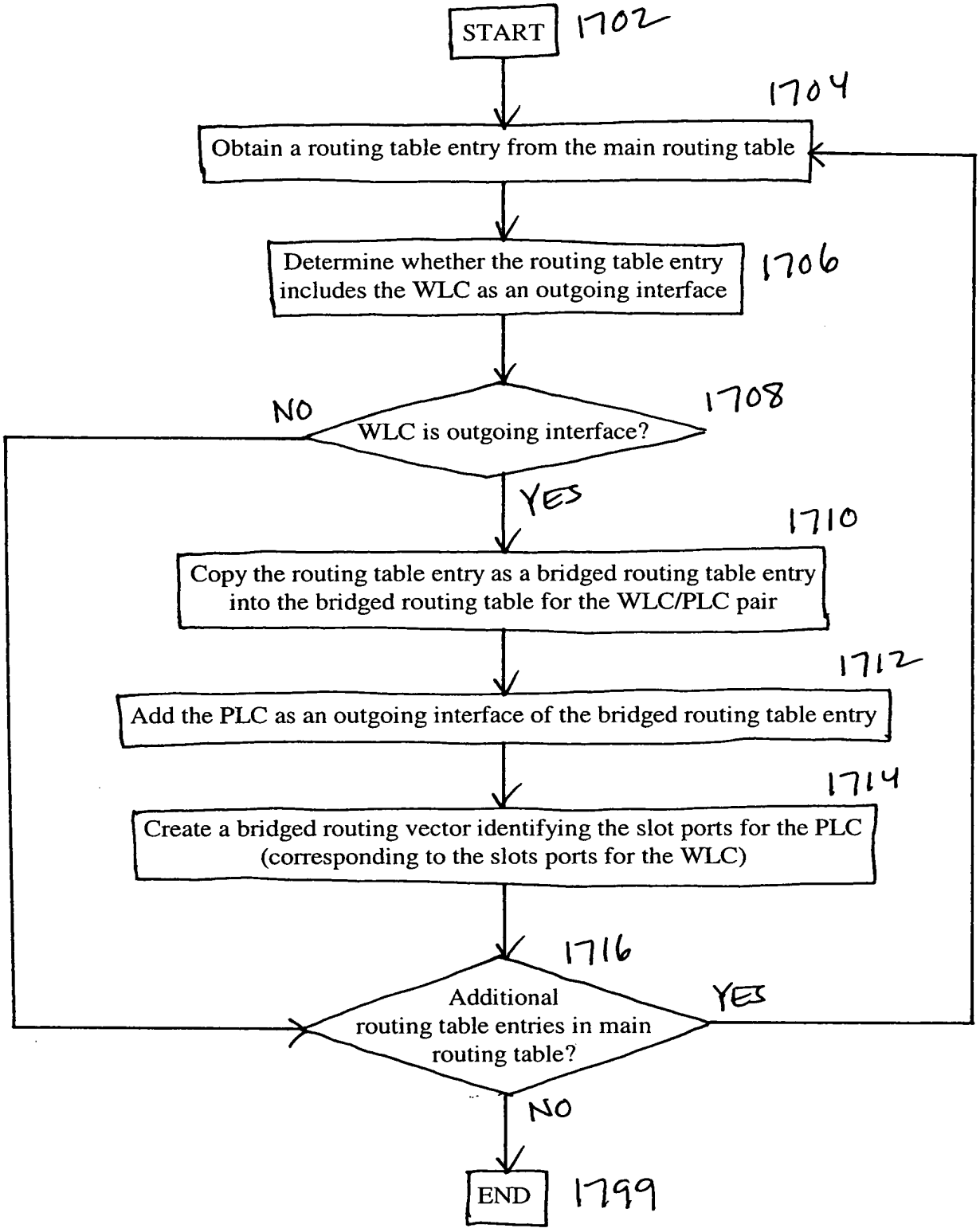

START
1702
1704
Obtain a routing table entry from the main routing table
Determine whether the routing table entry includes the WLC as an outgoing interface
1706
NO
WLC is outgoing interface?
1708
YES
1710
Copy the routing table entry as a bridged routing table entry into the bridged routing table for the WLC/PLC pair
1712
Add the PLC as an outgoing interface of the bridged routing table entry
1714
Create a bridged routing vector identifying the slot ports for the PLC (corresponding to the slots ports for the WLC)
1716
Additional routing table entries in main routing table?
YES
NO
END
1799

FIG. 17 1700

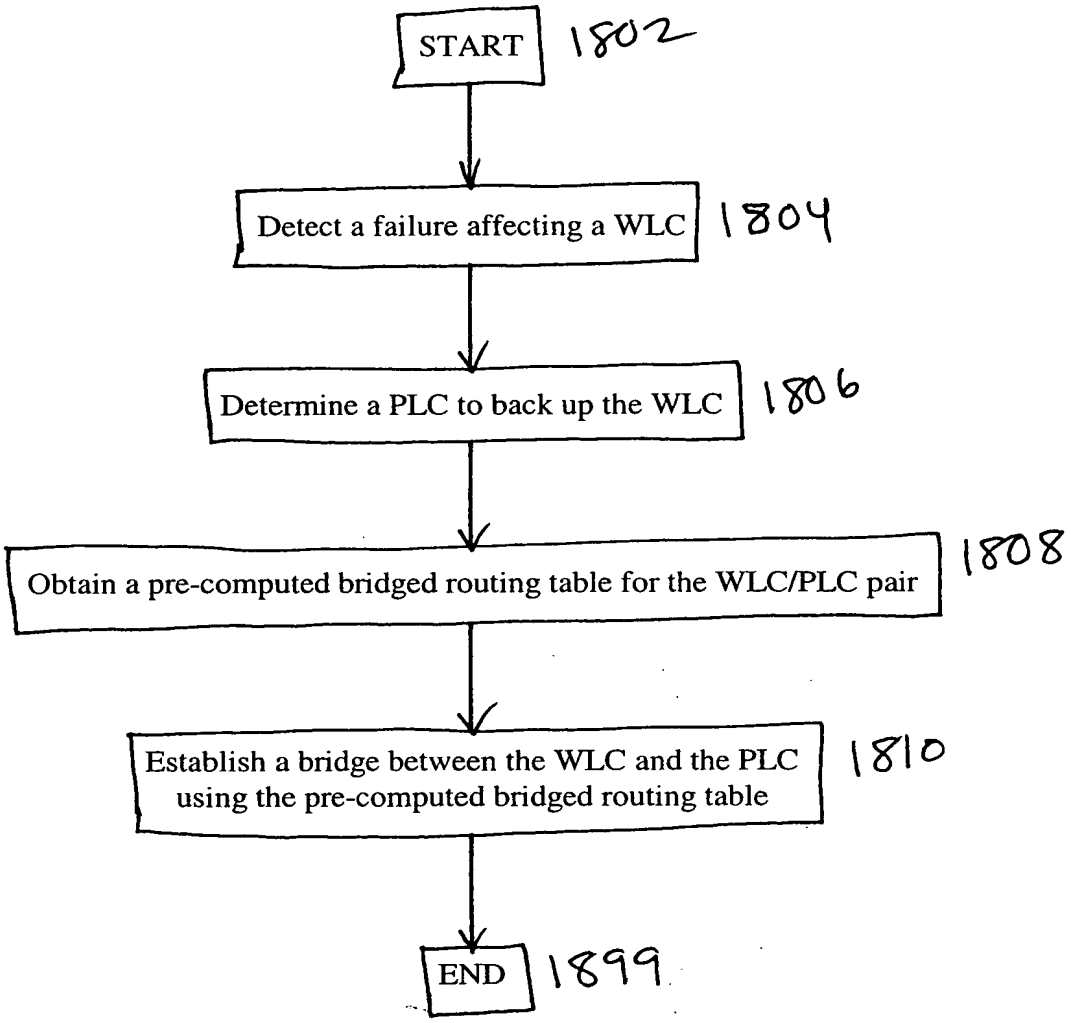

START
1802
Detect a failure affecting a WLC
1804
Determine a PLC to back up the WLC
1806
Obtain a pre-computed bridged routing table for the WLC/PLC pair
1808
Establish a bridge between the WLC and the PLC using the pre-computed bridged routing table
1810
END
1899

FIG. 18 1800